IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

#29/Appeal Brief 10-2-01 GS

Re Patent Application of Hall et al.
Application Serial No. 09/172,577
Application Filing Date 10/13/98
For **INERT GAS BLANKET FOR PROTECTION FROM OXIDATION**

BRIEF FOR APPELLANT

On Appeal from

Group Art Unit 3682
Examiner Chong H. Kim
Supervisory Patent Examiner David A. Bucci

Commissioner for Patents
Washington, D.C. 20231

Sir:

Please consider the instant brief in support of the patentability of the claimed invention under final rejection per the Examiner's Action of 05/02/01 (Paper No. 23) and the subject of this appeal. This brief is submitted in triplicate.

Submitted herewith is the required brief fee of $155.00.

Real Party in Interest

The first party named in the caption, i.e., Richard H. Hall, Ph.D., is the real party in interest.

Related Appeals and Interferences

No appeals nor interferences are known which will directly affect, be directly affected by, or have a bearing on the Board's decision in the present pending appeal.

Status of Claims

Claims 16, 17, 19, 20, 39, 42, 43, 46, 47, 50-53 & 61 are on appeal. Claim 68 is not appealed. Claims 64-67 are allowed, and claims 62 & 63 are objected to as being dependent upon a rejected base claim but held allowable if rewritten in independent form to include all limitations of the base claim, No. 61. Claims 1-15, 18, 21-38, 40, 41, 44, 45, 48, 49 & 54-60 have been canceled.

Status of Amendments

After the issue of the final action, Paper No. 23, no claim has been offered for amendment.

Status of Specification

The specification stands objected to under 35 USC 132 for entry of new matter. This will be disposed of by addressing the rejections to the claims under 35 USC 112, first paragraph.

Summary of Invention

Generally, the claimed invention on appeal resides in methods for controlling, with an inert gas blanket, oxidative degradation of oleaginous liquids in select portions of working machines, for example, nitrogen protecting oil in an internal combustion engine crankcase, which can provide for amazingly increased longevity of the liquid (page 2, line 18, to page 3, line 24; FIG. 1, 1A, 1B). Support for the claims on appeal, in particular, can be found in the present specification, to include drawings, as follows:

Claim	Support
16:	Page 2, lines 19-23; page 4, line 18, to page 6, line 10; page 8, lines 16-24; page 9, lines 2-8, 14-16, 19-24; FIGS. 1, 1A, 1B, 3, 4.
17:	Page 2, lines 22-23; page 5, line 2, by amendment as filed on September 12, 2000; original claim 8; FIGS. 1, 1A, 1B.
19, 42, 43, 53:	Page 5, line 12 to page 8, line 6; FIG. 3.
20, 51, 52:	Page 1, lines 17-20; page 2, line 23; page 4, lines 2-4.
39:	Page 2, line 22; FIGS. 1A, 1B.
46, 47:	Page 6, line 13, to page 6, line 1; FIG. 1.
50:	Page 2, lines 19-23; page 4, lines 18-20; page 4, line 24, to page 5, line 2; FIG. 1.
61:	Page 2, lines 19-23; page 4, lines 18-20; page 4, line 24, to page 5, line 2; page 5, line 12, to page 8, line 6; FIGS. 1, 3.

Issues

The issues presented for review are as follows:

1) Under 35 USC 112, first paragraph, whether claims 16, 17, 19, 20, 39, 42, 43, 46, 47 & 51-53 contain matter present in the specification to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the invention, as concerns A) claims 16 et seq. and the recitation, "vented space in a working machine," in claim 16; and B) claims 20 and 51-53 and the recitation, "without the presence of said inert gas blanket, the engine oil would present properties of needing to be changed after a few thousand miles of use in said internal combustion engine," in claims 20, 51 & 52.

2) Under 35 USC 102(b), whether claim 16 distinguishes over Kopel, U.S. patent No. 4,561,393.

3) Under 35 USC 103(a):

A) whether claims 16, 17, 39 & 50 distinguish over Elizabeth et al., U.S. patent No. 3,617,580, in view of Fujiyama et al., Japanese patent No. 02082304 A.

B) whether claims 19, 20, 43, 43, 51-53 & 61 distinguish over Elizabeth et al., in view of Fujiyama et al., in view of Gast, Jr., U.S. patent No. 5,649,995.

C) whether claims 46 & 47 distinguish over Elizabeth et al., in view of Fujiyama et al., in view of Gast, Jr., in view of Tremain et al., U.S. patent No. 4,594,080.

Grouping of Claims

With the Section 112, first paragraph, rejections, claims 16, 42 & 47 stand or fall together (vent); claims 17, 19 & 46 stand or fall together (vent); claims 39 & 43 stand or fall together (vent); claims 20 & 51-53 stand or fall together (mileage comparisons). Otherwise, the claims do not stand nor fall together.

Argument

In the record and in this brief, Appellant traverses all grounds of rejection and all statements and other actions adverse to his position. The Appellant contends the following in support of the patentability of the claims of the invention on appeal:

1) Claims 16, 17, 19, 20, 39, 42, 43, 46, 47 & 51-53 are properly supported under Sec. 112, first paragraph.

In essence, presented are "new matter" rejections. However, no new matter has been entered.

As concerns the rejection of claims 16, 17, 19, 20, 39, 42, 43, 46 and 47, no new matter has been entered by the recitation, "vented space in a working machine," found in claim 16, line 3.

Any person skilled in the art would recognize that many working machines, which include an enclosed space and lubricants in the enclosed space, are vented, especially common crankcases, transmissions and non-transmission gear boxes, as memorialized in patent art of record: Rose et al., US 5662156, cols. 1-2 (vented crankcase); Davison, Jr. et al., US 5062447, cols. 1-2 (vented transmission); Ishikawa et al., US 5052988, cols. 6-7 (vented gear box); Fisher, US 5284225, abstract (vented gear box); Kimura, US 5794602 (crankcase ventilation system); and Boggs, US 5852992, assigned to Ford Global Technologies, Inc., entitled, "Internal Combustion Engine Having Separated Cylinder Head Oil Drains and Crankcase Ventilation Passages," which states:

> "The working gasses of an internal combustion engine are generally confined to the combustion chamber and the intake and exhaust ports. A small portion of the working gasses, however, escapes from the combustion chamber past the piston rings to the crankcase. These gasses are referred to as blow-by and are vented back to the intake system to be recycled through the combustion process."

Thus, the claims are supported, to include as follows:

> Claims 16, 42, 47 (generic working machine) and 17, 19, 46 (transmission box, gear box not transmission, internal combustion engine crankcase) by all the foregoing art.
> Claims 39, 43 (transmission box, gear box not transmission) by Davison, Jr. et al., Ishikawa et al., and Fisher.
> Claim 20 (internal combustion engine crankcase) by Rose et al., Kimura, and Boggs.

Note, FIG. 1 of the present specification, which depicts such a common internal combustion engine. Clearly, therefore, internal combustion engines, and, in turn, many working machines, are vented. Compare, claims 16 et seq., especially claim 20. Not only does the original specification expressly recognize this in relation to the present invention by referring to "overpressure" as, for example, at page 9, line 15, which term stands in allowed claim 64, but it also states as follows in support of the claims:

> Page 4, lines 16-17: "The [detail] is to be taken in an illustrative and not necessarily limiting sense."
> Page 8, line 16: "Internal pressure relief opening and/or valve 60 may be provided."
> Page 9, lines 19-22: "Various features, subcombinations and combinations of the invention may be practiced with or without reference to other features, subcombinations or combinations in the practice of the invention, ..."

What is more, the specification, at page 8, lines 17-24, states:

> "The device 50 may be retrofitted to a standard, generally enclosed device 10 to provide the protected machinery 100 ... For an illustrative example, such may be adapted especially for and made available in the automotive aftermarket for retrofitting with a standard automotive engine, or adapted especially for and made available in the heavy machinery market for retrofitting with standard locomotive, farm tractor, over the road truck, or ship engines." (Emphases added.)

Compare, again, present FIG. 1, which depicts a common, i.e., standard, internal combustion engine in a motor vehicle, modified with the invention, in which the features connected to and above the valve cover, at least one of which would be recognized as being a vent for the crankcase, again, so that blow-by gasses can

enter the combustion train. Also, attached is a flier sheet from Murray's Discount Auto Stores: FUEL WATCH. (The flier was first observed by the undersigned on July 26, 2001 and filed on July 27, 2001 with the Supplemental AF Remarks and a Form PTO-1449.) Note, the information in the right hand column, second item from from the top: **PCV and Breather Filter.** This, too, corroborates that the known internal combustion engines, especially those for motor vehicles as depicted in present FIG. 1, are vented. Note the flier's acknowledgement of the "breather" and "PCV valve." In fact, were it true that crankcases were not vented, the seals of internal combustion engines would continually blow, with the result that the engines would be inoperable. The Examiners had been requested, if they knew of an internal combustion engine, especially for motor vehicles, which is not vented, to make this of record, for example, by an Examiners' affidavit. They did not, nor can they. Again, a vented engine is a fine example of a working machine. Compare, claims 16 et seq., especially claim 20. For another example, as noted above, it is well known that transmissions are vented. Compare, claims 16 et seq., including claims 39 & 43. Once again, any person skilled in the art would recognize this and, from the drawings and written description, be able to make expression of the recitation at issue, "vented space in a working machine." Support for an amendment need not be in ipsis verbis. See, In re Wertheim, 191 USPQ 90, 98 (CCPA 1976). A drawing alone can support a written amendment. See, Vas-Cath Inc. v. Mahurkar, 19 USPQ2d 1111, 1118 (Fed. Cir. 1991).

The Examiners were advised for the most part of these matters in papers filed on September 21, 2000 (AF Amendment, page 7);

October 10, 2000 (Prelim. Amdt., paragraphs 3 & 6 of remarks); February 26, 2001 (CPA Amendment, page 5); July 25, 2001 (AF Remarks, paragraph bridging pages 1 & 2); and July 27, 2001 (Supplemental AF Remarks). However, to boil down the reasoning set forth in ostensible support of this rejection, the Examiners proffered, for the amendment to not constitute new matter, that all working machines must have vents; that one cannot combine a feature (pressure relief vent) from a non-elected species to an elected one; and that the disclosure of "overpressure" does not infer a vent. See, Paper No. 23, pages 3, 7 & 8.

Against the first reason, it is sufficient to overcome the rejection to understand that the Appellant does not need to show that **all** working machines are vented to enter such a limitation. To say as the Examiners have done on pages 7-8 of Paper No. 23 is to go against common sense and Supreme Court case law. Even if an airtight working machine is known, it is not dispositive that such negates a vented one! The citation of certain patents by the Examiner on page 8 of Paper No. 23 begs the question of whether vented machines exist, and particular citations are problematic and/or nonanalogous art. It is well settled that an amendment like this does not constitute addition of new matter. See, Marconi Wireless Telegraph Co. of America v. United States, 57 USPQ 471, 483 (U.S. 1943). What is more dispositive, however, is that the present and original specification, as pointed out above, discloses, in particular, examples of standard machinery such as a crankcase of an internal combustion engine as depicted in FIG. 1 and described on page 8 and so forth, which are vented.

Against the second reason, the specification openly asserts,

"Various features, subcombinations and combinations of the invention may be practiced with or without reference to other features, subcombinations or combinations in the practice of the invention." Thus, the disclosure of a vent for a silo, even though patentably distinct from, can apply to, a working machine.

Against the third reason, the disclosure of "overpressure" does indeed infer a vent. An overpressure situation, as known in the art, refers to a situation in which an inside body of a gas, in limited contact with an outside body of a gas, has a greater pressure than the outside body. The limited contact is provided by a vent. Notice, for example, pressurized domed stadiums, which are vented and employ the known overpressure principle.

Additionally, it may be noted that the Examiners were correct to not make a rejection similar to the one at issue against *claim 68 even though its recitation, "working machine having working parts," does not itself appear in the specification as filed but was entered into the claims by amendment, with implicit support only. That situation is no more compelling than the one at hand with the recitation, "vented space in a working machine."

Therefore, claims 16, 17, 19, 20, 39, 42, 43, 46 and 47 find support in the original specification, with no new matter added.

As concerns the rejection of claims 20 & 51-53, no new matter has been entered by the recitation, "without the presence of said inert gas blanket, the engine oil would present properties of

*Claim 68 reads: "A method for controlling oxidative degradation of an oleaginous liquid substance in a generally enclosed space in a working machine having moving parts in the generally enclosed space, which comprises providing said oleaginous liquid substance; and blanketing said oleaginous liquid substance in said space with an inert gas blanket to control oxidative degradation of said oleaginous liquid substance."

needing to be changed after a few thousand miles of use in said internal combustion engine," found in claims 20, 51 & 52.

This recitation is fully disclosed in the original written specification as taken in its entirety by any fair reading of the same. The specification must be read as a whole. See, e.g., In re Eickmeyer, 202 USPQ 655, 663 (CCPA 1979).

The 20,000-mile and 50,000-mile limitations at issue are clearly present in the specification as a comparison to the prior art. Compare, the background for known automobile engine oil to the invention as found in the specification, page 1, lines 15-19; page 2, line 17; and from page 2, last line, to page 3, line 4:

> "One of the primary enemies of longevity in hydrocarbon-based lubricants is oxidation. For example, engine oils employed in automobiles ... break down significantly owing to oxidation and must be replaced every few thousand miles ... .
>
> "It would be desired to overcome or ameliorate such problems.
>
> "Significantly by the invention, the useful life of oleaginous liquids and hydrocarbon-based lubricants can be extended to most amazing lengths. For example, with the practice of the present invention, it may be necessary to change automobile engine oil only after twenty to fifty thousand miles of use or more."

Even so, again, claim limitations are not required to be supported in ipsis verbis. See, Wertheim, 191 USPQ at 98.

This, for the most part, was submitted in the CPA Amendment. However, against this sound submission, the Examiners contend, in essence, first, that the description simply states that oxidation is one of the primary enemies which breaks down automobiles, transportation and stationary power units, and, secondly, that other additives can extend the oil life and that the inert gas blanket must be the only source of oil longevity. See, Paper

No. 23, page 9. Such reasoning is untenable.

As to the Examiners' first reason, again, as noted above, the **whole** specification, not just a part of it, must be read, as a skilled artisan would, in context. See, Eickmeyer, 202 USPQ at 663. See also, In re Johnson, 127 USPQ 216, 217 (CCPA 1960). The interpretation advanced by the Examiners is stilted.

As to the second reason advanced by the Examiners, it is the claims which measure the metes and bounds of the invention, and the claims at issue plainly require a comparison of a sample of engine oil to a sample of the same type of engine oil, one sample protected by the inert gas blanket, the other not. Whether or not additives are present in the samples (and they are present in all likelihood) is irrelevant to the limitation. If additives are present they are present equally in both sample sets; if additives are absent, they are absent to the same extent in both. To say otherwise would denigrate the level of skill in the art.

Apparently, what the Examiners have done here in the second instance is attempt to shift the grounds for rejection silently from that of "new matter" to one of enablement. However, the claims are plainly enabled by their own terms. Compare, Johnson, 127 USPQ at 218; In re Geerdes, 180 USPQ 789, 793 (CCPA 1974).

Therefore, claims 20 & 51-53 find support in, and are enabled by, the original specification, with no new matter added.

2) Claim 16 distinguishes over Kopel under Sec. 102(b).

Kopel describes a sealed unit for a hydraulic lifter. The lifter has a sealed reservoir chamber in which is provided an inert gas. Note, title; column 1, line 56, to column 2, line 25.

In contrast, claim 16 requires a vented, not sealed, system.

The Examiners have been informed of this since the filing of the Amendment on February 14, 2000, when this limitation in claim 16 was introduced. On no occasion have the Examiners denied this distinguishing limitation, but they have repeatedly ignored it, finally rationalizing that it constituted an entry of new matter. See, Paper No. 23, pages 3-4 & 9-10. As made abundantly plain above, the "vented" limitation does not constitute an addition of new matter; moreover, it clearly distinguishes over Kopel. Compare, In re King, 231 USPQ 136, 138 (Fed. Cir. 1986).

Therefore, claim 16 is not anticipated under Section 102(b).

3) No present claim is rendered obvious under Sec. 103(a).

In general, none of the proposed combinations teach nor suggest to one of ordinary skill in the pertinent art any claim of the invention under the meaning of Section 103(a). Factors required to determine unobviousness as set forth in Graham v. John Deere Co. of Kansas City, 148 USPQ 459 (U.S. 1966), and other controlling laws were not adhered to, and no prima facie case of obviousness has been presented. In addition, the Examiners improperly brushed aside evidence strongly supporting the patentability of the invention, and, overall, they employed the improper use of the forbidden hindsight faculty.

Before addressing each rejection in particular, overall, as the Appellant had submitted of record, with respect to these rejections, absent the Appellant's invention disclosure, nothing in the prior art suggests the invention, or links the bits and pieces of prior art that have been applied. The missing link is the present invention disclosure; however, to use its claims as a roadmap for finding the bits and pieces of unrelated art or to

apply it as a piece of prior art is a mere exercise in hindsight, and it remains strictly forbidden. See, Arkie Lures Inc. v. Gene Larew Tackle Inc., 43 USPQ2d 953, 957 (Fed. Cir. 1997). It must be noted, moreover, that motivation to combine references must be practical, not abstract, and only abstract and strained reasoning is set forth of record, to include in Paper No. 23, as an attempt at representing motivation. See, In re Stemniski, 170 USPQ 343, 347 (CCPA 1971). In reply, the Examiners cited In re McLaughlin, 170 USPQ 209 (CCPA 1971). See, Paper No. 23, pages 11-12. It is true that, if reasoning used in setting forth a Section 103(a) rejection takes into account only knowledge within the level of ordinary skill in the art at the time the claimed invention was made, and it does not include knowledge gleaned only from an applicant's disclosure, "reconstruction" is proper. However, that is not what has occurred here. Instead, the Examiners have clearly, by finding bits and pieces of the claims in unrelated art or by using the Appellant's disclosure as if it were itself a piece of prior art, employed the impermissible hindsight faculty. Hindsight is almost always perfect. It is insufficient to prove, however, as the Examiners tried to do, that at the time of the claimed invention, separate elements of the device were present in the known art. Rather, there must have been some teaching or suggestion clearly present in relevant prior art to motivate one of ordinary skill to combine such elements to create the same invention. Note, Winner International Royalty Corp. v. Wang, 48 USPQ2d 1139, 1144 (D.D.C. 1998), citing, Arkie Lures, 43 USPQ2d at 957. See, In re Sernaker, 217 USPQ 1, 6 (Fed. Cir. 1983); In re Oetiker, 24 USPQ2d 1443, 1445-1446 (Fed. Cir. 1992).

A) Claims 16, 17, 39 & 50 distinguish over Elizabeth et al., in view of Fujiyama et al.

The references, Elizabeth et al., and Fujiyama et al., are fundamentally unrelated to each other as well as to the claimed subject matter at issue. Accordingly, since a reference must be related not only to the art of the claim at issue but also to the art of other references in which it is proposed in combination, the proposed combination fails. See, Sernaker, 217 USPQ at 5.

Elizabeth et al. discloses a lubricating oil treatment system. That treatment concerns and involves circulation of crankcase oil through a solid, inorganic substance containing filter element. The substance of the filter element can be an active metal such as zinc, aluminum, magnesium, etc., or can even be an oxidizable material such as red phosphorus. It thus would appear to remove acid functionality from the oil. That treatment may also include use of so-called "inert" filter elements such as diatomaceous earth, kaolin, kieselguhr, activated clay, charcoal, activated carbon and fuller's earth. The Elizabeth et al. patent is directed to correction of sludge formation, caused by nitrogen compounds including oxides of nitrogen in the combustion process. It employs a chemical process of reduction of oxidized species dissolved or suspended in already oxidized liquid oil.

Fujiyama et al. (also spoken of record as "Horiba") discloses use of a solid, floating inner cover which resides on the surface of oil stored in a tank. Above the cover is an inert gas supply.

Nothing in Elizabeth et al. suggests the value of reducing the oxygen content in a gas (e.g., air) above the oil in the crankcase or in any other space above oleaginous liquid in a

working machine. As well, any phosphorus compound formed between the red phosphorus and polar or acidic oxidized oil would be soluble enough to pass through the filter into the oil supply. Such phosphorus compounds have sufficient volatility to pass through the crankcase venting system (e.g., Selby/Selby et al., U.S. patent Nos. 5,667,302; 5,692,892; 5,922,973; 6,083,380) and cause premature failure of the catalytic exhaust system. Thus, Elizabeth et al. does not provide the necessary advantage to suggest modification along the lines of the present invention, and moreover, clearly teaches away from the present invention, which are strong indications of nonobviousness. See, Sernaker, 217 USPQ at 6; In re Hedges, 228 USPQ 685, 687 (Fed. Cir. 1986).

In other words, the Elizabeth et al. disclosure is reactive and remedial in nature and operation. In stark contrast, the present claimed invention is generally passive and preventative.

Furthermore, nothing in Fujiyama et al. relates to protection of oil in a working machine, nor does Fujiyama et al. suggest that an inert gas such as nitrogen should be in contact with the oil. Rather, Fujiyama et al. teaches that a solid, inner cover should contact the oil. Moreover, the upshot of that teaching of Fujiyama et al. is clear: the ordinary artisan is taught, in essence, that an inert gas blanket alone is inadequate to protect oil from oxidation. Thus, he is taught away from direct inert gas blanketing of oil as claimed, which, again, is strong evidence of nonobviousness. See, Hedges, 228 USPQ at 687.

Thus, Fujiyama et al. cannot be combined with Elizabeth et al., since neither relates to the art of the present invention which employs an inert gas above and in contact with an

oleaginous liquid in a working machine, nor does the art of Fujiyama et al. (storage) relate to the art of Elizabeth et al. (filtering plus chemical reaction in the liquid phase to neutralize dissolved oxidation products in already oxidized oil). See, Sernaker, 217 USPQ at 5; Oetiker, 24 USPQ2d at 1445-1446. Even if, for the sake of argument, the references could be properly combined, their teachings would not motivate one of ordinary skill to arrive at the claimed invention. Clearly, Fujiyama et al. does not make up for the deficiencies in Elizabeth et al. Moreover, the references alone, and together, teach away from the present claimed invention, to reductive reaction of previously oxidized species; to nitrogen compound protection by solid filters; and to solid covers on top of an oil supply. Once again, this is strong evidence of nonobviousness. See, Hedges, 228 USPQ at 687. What is more, if combinable, the proposed combination would be inoperable as an inner cover, effective for oxidation protection, would prohibit the lubricant from being able to splash, etc., to lubricate the working machine. An inoperable teaching or modification from a reference renders the reference inapplicable and can itself teach away. See, In re Gordon, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

The Examiners, moreover, have ignored the foregoing in the proposed references, and taken what they assert each teaches out of context. However, the whole of the references must be read, not just bits and pieces. It is impermissible, as done by the Examiners here, to pick and choose from any one reference only so much of it as would purport to support a given position, to the exclusion of the other parts necessary to the full appreciation

of what such reference fairly suggests to one of ordinary skill in the pertinent art. See, Hedges, 228 USPQ at 687.

As well, the reasoning set forth in Paper No. 23 in reply to argument such as that set forth of record by the Appellant is in serious error. In particular, the Examiners beg the question at issue since, as pointed out above, the cited references are inoperable and cannot be applied. See, Gordon, 221 USPQ at 1127. Then too, the Examiners rely on the cited Oetiker decision. The same, however, does not support their position, but that of the Appellant: the problem faced by the inventors was not the broad field of keeping elements from oxidizing, otherwise, as pointed out of record by the Appellant, all kinds of even further unrelated art could be applied such as that of polymeric solids and so on, but rather is the pertinent field of keeping an oleaginous liquid, for example, an engine oil or a transmission fluid, from oxidizing. Note that the Examiners have admitted this tacitly in allowing claims 62-67. None of the references applied is relevant under the meaning of Sec. 103(a). Common sense, not remote abstraction, rules. See, Oetiker 24 USPQ2d at 1446; Stemniski, 170 USPQ at 347. The strong evidence of teaching away was also ingnored by the Examiners.

Thus, it can be seen how claim 16 distinguishes over the art. Likewise, claims 17, which requires that the oleaginous liquid be an oil or a transmission fluid, and that the working machine be a transmission box, a nontransmission gear box, or an internal combustion engine with a crankcase holding the oleaginous liquid, distinguishes. Furthermore, nothing in Elizabeth et al., nor Fujiyama et al., discloses the required transmission box or

nontransmission gear box as required in claim 39. The Examiners, clearly however, merely deemed this claim obvious, which is improper. See, In re Freed, 165 USPQ 570, 571 (CCPA 1970). As well, as seen above with respect to the internal combustion engine art, nothing renders claim 50 obvious either.

B) Claims 19, 20, 43, 43, 51-53 & 61 distinguish over Elizabeth et al., in view of Fujiyama et al., in view of Gast, Jr.

The Elizabeth et al. and Fujiyama et al. references have already been discussed above.

Gast, Jr., in short, discloses nitrogen generation control systems as for tractor trailer storage systems. The system of the patent to Gast, Jr. is a static system.

The cited references are fundamentally unrelated. Since the primary combination of Elizabeth et al. in view of Fujiyama et al., as set forth above, is inapplicable and does not suggest the modifications of even the base claim, and Gast, Jr. does not add anything to rectify this deficiency, the combination must fail. Furthermore, the primary combination, as noted above, teaches away from the claimed invention, which is strong evidence of unobviousness and a clue in general that the same are not to be applied under the meaning of Sec. 103(a). See, Hedges, 228 USPQ at 687; In re Gurley, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994). As well, neither the secondary reference nor the tertiary reference relates to the art of protecting an oleaginous substance in a working machine, as in base claim 16, nor particularly to engine oil protection in the crankcase of a working internal combustion engine, as in base claims 50 & 61, and more, Gast, Jr. relates to

the arts of neither of the primary nor secondary references, nor does it relate to the art of the base claims 16, 50 & 61. What is more, again, the present invention concerns a vented system. In other words, the present claims at issue point out a dynamic system, whereas Gast, Jr. represents a static system. Note, claims 19, 20, 42 & 43, claims 51-53 and claim 61. Only relevant art may be properly applied. See, Sernaker, 217 USPQ at 5; Oetiker, 24 USPQ2d at 1445-1446.

In addition, it is particularly egregious of the Examiners to attempt to apply Gast, Jr., which relates to a static system, and refuse to permit the Appellant to cite his own disclosure to an inert gas protected silo, also a static system, as discussed beforehand with respect to the rejections under Section 112. However that may be, taking the reasoning of the Examiners at face value in that the latter (silo) static system, since they have asserted that it is patentably distinct from the elected claims on appeal, cannot be applied to support a claim (although it can and does), the former static system of Gast Jr., since it also is clearly patentably distinct from the elected claims on appeal, cannot be applied under Section 103(a) as being nonanalogous and irrelevant art.

With particular respect to claims 20, 51 & 52, which point out differences in kind, not merely degree, as for driving 20,000 miles or more with petroleum based oil without an oil change without benefit of this invention, this is hardly a reasonable option, which can literally force the breakdown of the engine thereby, and as for driving 50,000 miles or more, even more applies. If the Examiners yet disagree, as they have been

invited to do several times of record, they are invited again to make of record facts supporting his speculative, dissenting views by entry of an Examiner's affidavit under 37 CFR 1.104(d)(2). They have not, nor can they.

Therefore, none of claims 19, 20, 43, 43, 51-53 & 61 is rendered obvious by the proposed combination.

C) Claims 46 & 47 distinguish over Elizabeth et al., in view of Fujiyama et al., in view of Gast, Jr., in view of Tremain et al.

The Elizabeth, Fujiyama et al., and Gast, Jr. references have been discussed above.

Tremain discloses molecular sieve type gas separation systems. It teaches separation of air for delivery of oxygen.

Since the primary combination fails to render obvious the intervening or base claims (19, 16; 42, 16) from which claims 46 & 47 depend, and Tremain adds nothing to remedy the deficiencies, by mere virtue of its dependence on these claims, claims 46 & 47 are allowable. In addition, the limitations of the claims are further distinguishing: claim 46 requires with a working machine delivery of oxygen for consumption and nitrogen for the inert gas, which is provided by separation of air with a membrane device, and claim 47 requires an oleaginous liquid of oil or transmission fluid, and the working machine of a transmission, nontransmission gear box or internal combustion engine with a crankcase for holding the oleaginous liquid.

Moreover, the intent of Tremain is only to deliver oxygen, not nitrogen, particularly not to a working machine. Thus, since the intents of a reference cannot be destroyed to establish a

prima facie case of obviousness, the reference cannot be properly applied under the meaning of Sec. 103(a). See, Gordon, 221 USPQ at 1127. Also, nothing in Tremain relates to delivery of nitrogen, and so, it is not properly applicable. Compare, Id., Sernaker, 217 USPQ at 5; Oetiker, 24 USPQ2d at 1445-1446. Note that pressure swing adsorption, of which the Tremain disclosure represents a type, is a bulky and complicated system, as opposed to a light weight small unit such as in which the present claimed membrane-containing invention can be embodied: even small units of Tremain-type devices for an individual person in supply of enriched oxygen to people with compromised lung capacity weigh a hundred pounds or more. There is nothing in Tremain or any other prior art that would suggest its employment with a working machine. Compare, Id., Stemniski, 170 USPQ at 347.

Therefore, neither of claims 46 nor 47 is rendered obvious by the proposed combination.

Conclusion

The claims on appeal satisfy the requirements of Title 35 United States Code, Sections 112, first paragraph; 102(b); and 103(a). Please, therefore, reverse the rejections at issue.

Respectfully,

RICHARD H. HALL ET AL.

Dated: Sept. 25, 2001 A.D.

Per Christopher John Rudy

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Attmts

The Claims on Appeal

The claims on appeal read as follows:

16. A method for controlling oxidative degradation of an oleaginous liquid substance in a generally enclosed, vented space in a working machine, which comprises providing said working machine having said space; providing said oleaginous liquid substance; and blanketing said oleaginous liquid substance in said space with an inert gas blanket to control oxidative degradation of said oleaginous liquid substance.

17. The method of claim 16, wherein said oleaginous liquid substance is selected from the group consisting of an oil and a transmission fluid, and said machine is selected from the group consisting of a transmission box, a gear box that is not a transmission box, and an internal combustion engine having a crankcase for holding a supply of lubricant and wherein said oleaginous substance is present in the crankcase as the lubricant.

19. The method of claim 17, wherein said inert gas of said inert gas blanket is provided from separation of air with a membrane-containing device.

20. The method of claim 19, wherein said oleaginous liquid substance is an engine oil; said machine is said internal combustion engine, and it is necessary to change the engine oil of the crankcase owing to the control of oxidative degradation of the engine oil, and the engine oil is changed, only after at least twenty thousand miles of use in said internal combustion engine, whereas, without the presence of said inert gas blanket, the engine oil would present properties of needing to be changed after a few thousand miles of use in said internal combustion engine in comparison to the engine oil protected by said blanket after said at least twenty thousand miles.

39. The method of claim 17, wherein said working machine is selected from the group consisting of said transmission box and said gear box.

42. The method of claim 16, wherein said inert gas of said inert gas blanket is provided from separation of air with a membrane-containing device.

43. The method of claim 39, wherein said inert gas of said inert gas blanket is provided from separation of air with a membrane-containing device.

46. The method of claim 19, wherein gas enriched with nitrogen provides said inert gas blanket, and by-product gas enriched with oxygen is delivered for consumption to a location selected from the group consisting of a part of the machine other than said enclosed space, and a passenger cabin space.

47. The method of claim 42, wherein gas enriched with nitrogen provides said inert gas blanket, and by-product gas enriched with oxygen is delivered for consumption to a location selected from the group consisting of a part of the machine other than said enclosed space, and a passenger cabin space.

50. A method for controlling oxidative degradation of an engine oil in a crankcase of an internal combustion engine, which comprises providing said engine; providing said engine oil to said crankcase; and blanketing said engine oil in said crankcase with an inert gas blanket to control oxidative degradation of said engine oil.

51. The method of claim 50, wherein it is necessary to change the engine oil of said crankcase owing to the control of oxidative degradation of said engine oil, and said engine oil is changed, only after at least twenty thousand miles of use in said internal combustion engine, whereas, without the presence of said inert gas blanket, the engine oil would present properties of needing to be changed after a few thousand miles of use in said internal combustion engine in comparison to the engine oil protected by said blanket after said at least twenty thousand miles.

52. The method of claim 51, wherein it is necessary to change the engine oil of said crankcase owing to the control of oxidative degradation of said engine oil, and said engine oil is changed, only after at least fifty thousand miles of use in said internal combustion engine, whereas, without the presence of said inert gas blanket, the engine oil would present properties of needing to be changed after a few thousand miles of use in said internal combustion engine in comparison to the engine oil protected by said blanket after said at least fifty thousand miles.

53. The method of claim 52, wherein said inert gas of said inert gas blanket is provided from separation of air with a membrane-containing device.

61. A method for controlling oxidative degradation of an engine oil in a crankcase of an internal combustion engine and delivering oxygen to a place away from said crankcase, which comprises providing said engine; providing said engine oil to said crankcase; providing a means for supplying an inert gas blanket of a gas enriched with nitrogen in comparison to air, which separates nitrogen and oxygen from the air to provide said inert gas blanket and provide a by-product gas enriched in oxygen; providing a means for directing said inert gas blanket to said crankcase, and blanketing said engine oil in said crankcase with said inert gas blanket to control oxidative degradation of said engine oil; and providing a means for directing said by-product gas to the place away from said crankcase.

Claims Acknowledged as Distinguishing

The claims which stand as **allowable** but objected to as dependent on a rejected base claim (claim No. 61) are as follows:

62. The method of claim 61, wherein the place away from said crankcase to which said by-product gas is directed is selected from the group consisting of a fuel injector assembly, and an air cleaner assembly for intake into a carburetor.

63. The method of claim 61, wherein the place away from said crankcase to which said by-product gas is directed is a catalytic converter.

The claims which stand **allowed** are as follows:

64. A method for controlling oxidative degradation of an engine oil in a crankcase of an internal combustion engine and delivering oxygen to a place away from said crankcase, which comprises providing said engine; providing said engine oil to said crankcase; providing a membrane-containing device for separation of air to supply an inert gas blanket of a gas enriched with nitrogen in comparison to air, which separates nitrogen and oxygen from the air to provide said inert gas blanket and provide a by-product gas enriched in oxygen; providing a means for directing said inert gas blanket to said crankcase; under overpressure conditions, blanketing said engine oil in said crankcase with said inert gas blanket to control oxidative degradation of said engine oil; and providing a means for directing said by-product gas to the place away from said crankcase.

65. A method for controlling oxidative degradation of a transmission fluid in a transmission and delivering oxygen to a place away from said transmission, which comprises providing said transmission; providing said transmission fluid to said transmission; providing a means for supplying an inert gas blanket of a gas enriched with nitrogen in comparison to air, which separates nitrogen and oxygen from the air to provide said inert gas blanket and provide a by-product gas enriched in oxygen; providing a means for directing said inert gas blanket to said transmission, and blanketing said transmission fluid in said transmission with said inert gas blanket to control oxidative degradation of said transmission fluid; and providing a means for directing said by-product gas to the place away from said transmission.

66. The method of claim 65, wherein the place away from said transmission to which said by-product gas is directed is selected from the group consisting of a fuel injector assembly, and an air cleaner assembly for intake into a carburetor.

67. The method of claim 65, wherein the place away from said transmission to which said by-product gas is directed is a catalytic converter.

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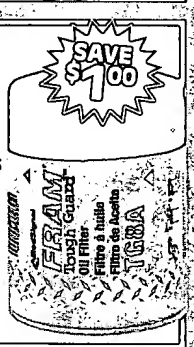

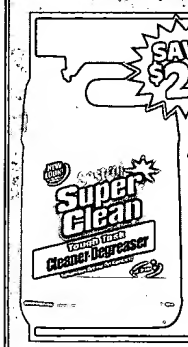

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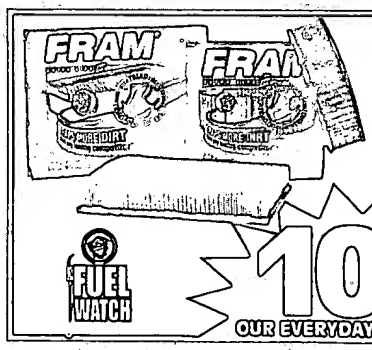

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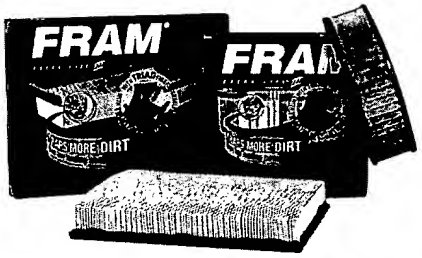

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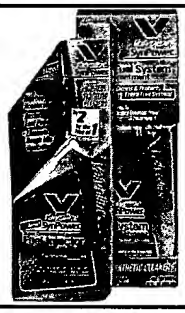
Tire Pressure
Check tire pressure monthly. Tires routinely lose about 4 pounds of pressure below recommended levels every 30 days. A whole set of under inflated tires can increase fuel consumption by 6%.**

Fuel System Cleaner
Adding a fuel system cleaner dissolves deposits in carburetors and fuel injectors to maximize fuel economy.



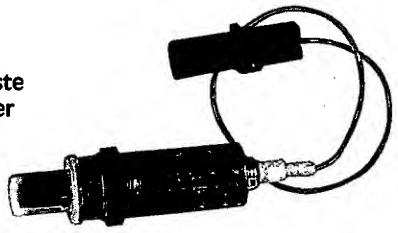
Valvoline

PCV and Breather Filter
Replace your air filter, PCV, and breather as part of a complete emission system tune-up to save as much as 10% of your fuel consumption.

Synthetic Oils
Change the oil in your car every 3,000 miles or about every 6 months. Regularly changing the oil will not only improve the life of your car's engine, it will reduce fuel consumption. Synthetic oils reduce friction that will allow the engine to run cooler and increase gas mileage between 1% and 4%.*

Mobil 1

Oxygen Sensor
Replace oxygen sensors after 30 to 50,000 miles of use. Worn-out oxygen sensors waste fuel, costing the average driver over $100 per year.'



BOSCH

Spark Plugs
Try platinum spark plugs the next time you do a tune-up. The platinum plug will burn cleaner and increase gas mileage because it maintains its performance level longer than copper plugs.

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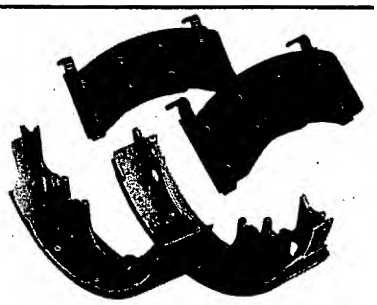
Brakes
Check brakes every 10,000 miles. Brakes that drag on the rotor or drum, decrease the ability of the vehicle to roll efficiently. This uses more gas.



Gas Caps
Replace gas caps every 3 years. A leaking or missing fuel cap can allow up to 30 gallons of gasoline per year to evaporate into the atmosphere.**

Stant

Spark Plug Wires, Distributor Cap and Rotor
Perform a regularly scheduled ignition tune-up. This includes, spark plugs, wires, distributor caps and rotor. A poorly tuned engine can increase fuel consumption by 50%.

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*Department of Energy, www.msnbc.com, "Gas prices be damned, I gotta drive". **AAA, Michigan Living, June, 2001.
'Bosch Oxygen Sensor Brochure. "University of Texas research study for the EPA.